

### **ABSTRACT OF THE DISCLOSURE**

A bulk property of a product such as pelletized polymer is monitored during production and used as a control input. The polymer is produced in a conventional plant. Polymer fluff from the plant flows along a conduit to an extruder where it is pelletized. The pellets are fed via a conduit to a silo. The plant is controlled by a computerized control system. As polymer passes along the conduit, a weight loss feeder measures its mass flow rate. It is then passed through a NIR spectrometer. The mass flow rate and the NIR data are transmitted to a data processor where they are used to calculate firstly the instantaneous polymer density and then the bulk density of the polymer in the silo. The output from the data processor is fed to a process controller which, if necessary, makes suitable adjustments to process conditions.